Improvement of Optical Red-Brightness of Chillie Powder

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Main objective of this study was to identify the factors responsible for colour improvement (Optical Brightness) of dried chillie powder. The study was carried out in a factorial combination using three variables at two levels. They were moisture content at 12% (a_0) & 8% (a_1), seed: pericarp ratio at 1:1 (b_0) & 1:2 (b_1) and the ground product with (c_0) and without (c_1) exposure to atmospheric air. Eight samples with three replicates were prepared and subjected to sensory evaluation by drawing samples every three weeks up to three months. The results obtained after three weeks and 15 weeks are given below.

Table: Colour change of Chillie Powder

Samples as per design	After 3rd weeks	After 15 weeks
$a_0b_0c_0$	7.16	3.66
$a_1b_0c_0$	7.50	4.00
$a_0b_1c_0$	7.66	4.16
$a_1b_1c_0$	7.92	5.00
$a_0b_0c_1$	9.16	7.16
$a_1b_0c_1$	9.00	8.00
$a_0b_1c_1$	9.33	8.16
$a_1b_1c_1$	9.83	9.50

(Maximum marks given for optical red brightness is 10)

Results show that adequate exposure time is the best physical remedy for color improvement of chillie powder. Low moisture content and low seed pericarp ratio also playing an important role. High seed contents can lead to faster color deterioration than with low seed content.

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